LIMIT AND CONTINUITY

Solutions:

1. When x is close to a and x $\neq$ a, f(x) is close to l.

2. $\lim_{x \to a} f(x)$ exists, and $\lim_{x \to a} f(x) = f(a)$.

3. (1) 3 (2) $\frac{1}{2}$ (3) does not exist

4. (i) (1)2 (2) 2 (3) does not exist

   (ii) g is not continuous at 0.
   $\because \lim_{x \to 0} g(x)$ does not exist.

5. (i) (1) 2 (2) 2 (3) 2

   (ii) h is continuous at -1.
   $\because \lim_{x \to -1} h(x) = h(-1)$